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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DUKE W. YEE YEE & ASSOCIATES, P.C. P.O. BOX 802333 DALLAS, TX 75380			EXAMINER WILLIAMS, CLAYTON R	
			ART UNIT 4152	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,140

Applicant(s)

BROWN ET AL.

Examiner

Clayton Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/1704.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-25 are pending in this application.

Claim Objections

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 is objected to as lacking sufficient antecedent basis for the limitation "the data processing system" (line 4) in the claim. Appropriate corrections are required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 18-21 and 22-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- a. In claim 18, "A data processing system for identifying...the data processing system comprising: detecting means..." constitutes software, per se, since the claim

consists purely of software elements. Software by itself is not one of the enumerated statutory categories of patentable subject matter.

b. Claims 19-21 fail to resolve the deficiencies of claim 18, since the computer instructions (software) which are further defined in these claims are essential elements of the computer instructions in claim 18.

c. In claim 22, the "computer readable medium" is defined to include "transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms..." (specification, page 31, lines 22-30). The pure transmission of information encompasses transmission through signals and carrier waves and therefore constitutes non-statutory subject matter.

d. Claims 23-25 fail to resolve the deficiencies of claim 22, since the computer instructions (software) which are further defined in these claims are essential elements of the computer instructions stored using the computer readable medium defined in claim 22.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 7, 8, 10, 11, 16-18 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al. (Pub. # US 2005/0198206), hereinafter Miller.

For claim 1, Miller teaches:

A method in a data processing system to identify a Web service in a registry using a registry lookup naming and directory provider ([0042], lines 1-7), the method comprising steps of:

detecting a request from a service requester to identify the Web service in the registry ([0040], lines 1-5);

responsive to detecting the request, determining if a first element is present in a registry file ([0040], lines 7-14);

responsive to determining the first element is present in the registry file, locating a second element in the registry file based on the first element in the registry file ([0040], lines 7-14); and

locating an endpoint location of the Web service based on the second element in the registry file ([0042], lines 8-13).

For claim 7, Miller teaches:

The method of claim 1, wherein the request includes a parameter representing a name of the Web service ([0040], lines 1-5).

For claim 8, Miller teaches:

The method of claim 7, wherein determining if a first element is present in the registry file includes determining if the name of the Web service maps to the first element ([0040], lines 1-5 and 9-13).

For claim 10, Miller teaches:

The method of claim 1, wherein the registry file includes one of a UDDI registry file, an electronic business using extensible markup language registry file, a web service inspection language registry file, and a custom registry file implemented using a database ([0040], lines 6-7).

For claim 11, Miller teaches:

The method of claim 1, wherein the endpoint location of the Web service includes a universal resource locator ([0042], lines 8-13).

For claim 16, Miller teaches:

The method of claim 1, wherein locating an endpoint location of the Web service based on the second element in the registry file includes determining if a lookup policy element exists in the registry file, wherein the lookup policy element includes a selection policy element ([0042], lines 1-6).

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For claim 17, Miller teaches:

The method of claim 16, wherein the registry lookup naming and directory provider selects a single endpoint location from a plurality of endpoint locations based on a selection policy in the selection policy element ([0045], lines 21-24 and 29-30).

For claim 18, Miller teaches:

A data processing system for identifying a Web Service in a registry using a registry lookup naming and directory provider ([0042], lines 1-7), the data processing system comprising:

detecting means for detecting a request from a service requester to identify the Web service in the registry ([0040], lines 1-5);

responsive to detecting the request, determining means for determining if a first element is present in a registry file ([0040], lines 7-14);

responsive to determining the first element is present in the registry file, locating means for locating a second element in the registry file based on the first element in the registry file ([0040], lines 7-14); and

locating means for locating an endpoint location of the Web service based on the second element in the registry file ([0042], lines 8-13).

For claim 22, Miller teaches:

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A computer program product in a computer readable medium for identifying a Web service in a registry using a registry lookup naming and directory provider ([0034], lines 1-4), the data processing system comprising:

first instructions for detecting a request from a service requester to identify the Web service in the registry ([0040], lines 1-5);

responsive to detecting the request, second instructions for determining if a first element is present in a registry file ([0040], lines 7-14);

responsive to determining the first element is present in the registry file, third instructions for locating a second element in the registry file based on the first element in the registry file ([0040], lines 7-14); and

fourth instructions for locating an endpoint location of the Web service based on the second element in the registry file ([0042], lines 8-13).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1, 18 and 22 above in view of Zhao et al. (Pub. # US 2003/0191802), hereinafter Zhao.

For claim 2, Miller discloses:

“The method of claim 1” (see rejection for claim 1 supra). Miller fails to disclose “further comprising in response to determining the first element is absent from the registry file, deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing the request to the standard naming and directory provider”.

However, Zhao discloses “further comprising in response to determining the first element is absent from the registry file, deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing the request to the standard naming and directory provider” ([0055], lines 16-19 and 23-28). Miller and Zhao are analogous art because they are from the same field of endeavor of web services implementation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method, system and computer program product for searching for web services as described by Miller to include a method, system and computer program product for searching an alternative repository if the registry returned no positive results for a web services query because Yeh teaches that a need exists for web service

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directories to query other directories for service information when no results matching query can be found locally (Col. 3, lines 16-21).

Therefore, it would have been obvious to combine Miller with Zhao for the benefit of creating a web services search implementation that employs multiple repositories as specified in claim 2.

For claim 19, the combination of Miller and Zhao discloses:

The data processing system of claim 18 (see rejection for claim 18 supra), further comprising: in response to determining the first element is absent from the registry file, deferring means for deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing means for passing the request to the standard naming and directory provider (Zhao, [0055], lines 16-19 and 23-28).

For claim 23, the combination of Miller and Zhao discloses:

The computer program product of claim 22 (see rejection for claim 22 supra), further comprising: in response to determining the first element is absent from the registry file, fifth instructions for deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes sixth instructions for passing the request to the standard naming and directory provider (Zhao, [0055], lines 16-19 and 23-28).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above in view of Stelting (US Patent # 7,266,582), hereinafter Stelting.

For claim 6, Miller discloses:

“The method of claim 1” (see rejection for claim 1 supra). Miller fails to disclose “wherein the request includes a Java naming and directory interface request.”

However, Stelting discloses “wherein the request includes a Java naming and directory interface request” (Col. 7, lines 2-6). Miller and Stelting are analogous art because they are from the same field of endeavor of web services implementation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method of looking up information about how to use an identified web service (abstract interface and protocol bindings) utilizing WSDL (as taught by Miller) to include Java Naming and Directory Interface (JNDI) as taught by Stelting in order to expand the range of implementations for web services look up because Miller teaches that web service-related information stored by a registry need not be encoded in any particular language ([0008], lines 1-3).

Therefore, it would have been obvious to combine Miller and Stelting for the benefit of creating a web services location method which included Java Naming and Directory Interface location look up as specified in claim 6.

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11. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller as applied to claim 1 above in view of Sharma et al. (Pub. US # 2003/0204645), hereinafter Sharma.

For claim 9, Miller discloses:

“The method of claim 1” (see rejection for claim 1 supra). Miller fails to disclose “wherein the first element includes a service-ref-name element.”

However, Sharma reads on the claimed “wherein the first element includes a service-ref-name element” ([0115], lines 15-23). Miller and Sharma are analogous art because they are from the same field of endeavor of web services implementation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method of identifying web services in a registry (as taught by Miller) to include implementation of the service-ref-name and stub as taught by Sharma because the service-ref-name and stub implementations are standard elements used in WSDL to identify the name of web services within databases (Sharma, [0115], lines 15-23).

Therefore, it would have been obvious to combine Miller and Sharma for the benefit of creating a web services lookup database which included the service-ref-name element as specified in claim 9.

For claim 12, the combination of Miller and Sharma discloses:

The method of claim 1 (see rejection for claim 1 supra), wherein instance of the Web service includes a stub of implementation of the Web service (Sharma, [0055], lines 1-6).

12. Claims 3-5, 13-15, 20, 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller and Zhao as applied to claims 2, 19 and 23 above, in view of Stelting, and further in view of Stawikowski (Pub # US 2002/0174178), hereinafter Stawikowski.

For claim 3, the combination of Miller and Zhao discloses:

“The method of claim 2” (see rejection for claim 2 supra). The combination of Miller and Zhao fails to disclose “wherein identification of the Web service by the standard naming and directory provider further comprising:

locating an additional configuration file;

determining if a service name element is present in the additional configuration file; and

responsive to determining the service name element exists is present in the additional configuration file, locating an endpoint location of the Web service based on an address element of the additional configuration file.”

However, Stelting discloses “wherein identification of the Web service by the standard naming and directory provider (Col. 7, lines 2-5) further comprising:

"locating an additional configuration file (Col. 6, lines 44-49, describes method of service detectors utilizing a variety of techniques for performing look up of web services; Stawikowski, [0017], lines 1-7, further describes method where computer application sends request to remote node requesting WSDL documents describing additional capabilities (configuration) of a web service); determining if a service name element is present in the additional configuration file (Col. 6, lines 52-56); and responsive to determining the service name element exists is present in the additional configuration file, locating an endpoint location of the Web service based on an address element of the additional configuration file" (Col. 7, lines 2-8, discloses discovering endpoint location by a number of methods, including a direct query method). Zhao, Stelting and Stawikowski are analogous art because they are from the same field of endeavor of web services implementation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method, system and computer program product on a medium for locating a web service (as taught by Miller and Zhao) to include implementation of a standard naming and directory provider as taught by Stelting and Stawikowski because Zhang teaches the importance of extending web service searches to include aggregate results from multiple services in order to extend search capability.

([0014], lines 1-5; [0013], lines 6-10).

Therefore, it would have been obvious to combine Miller, Zhao, Stelting and Stawikowski for the benefit of creating a web services lookup implementation that includes searching configuration files for information as specified in claim 3.

For claim 4, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The method of claim 3 (see rejection for claim 3 supra) further comprising:
retrieving an instance of the Web service based on the endpoint location (Miller, [0042] lines 8-13); and
returning the instance of the Web service to the service requester (Miller, [0045], lines 32-34).

For claim 5, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The method of claim 3 (see rejection for claim 3 supra) wherein the additional configuration file includes a web service directory language file (Stelting, Col. 8, lines 11-18).

For claim 13, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The method of claim 3 (see rejection for claim 3 supra), wherein locating an additional configuration file (Stawikowski, [0053], lines 1-7, a configuration file is functionally equivalent to a service description document) includes locating a wsdl-file element in a webservicessclient.xml file (Stawikowski, [0054], lines 1-5, webservicessclient.xml is functionally equivalent to an XML discovery document).

For claim 14, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The method of claim 3 (see rejection for claim 3 supra), wherein determining if a service name element is present in the additional configuration file includes determining if a name of the Web service from the request maps to the service name element (Miller, [0040], lines 1-5 and 9-13)."

For claim 15, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The method of claim 3 (see rejection for claim 3 supra), wherein identification of the Web service by the standard naming and directory service, further comprising:

responsive to determining the service name element is absent from the additional configuration file, returning an error to the service requester (Zhao, [0058], lines 5-9, teaches the service directory returning 'no' response when query cannot be satisfied).

For claim 20, the combination of Miller and Zhao discloses:

"The data processing system of claim 19" (see rejection for claim 19 supra). The combination of Miller and Zhao does not disclose: wherein identification of the Web service by the standard naming and directory provider further comprising:

locating means for locating an additional configuration file;

determining means for determining if a service name element is present in the additional configuration file; and

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responsive to determining the service name element exists is present in the additional configuration file, locating means for locating an endpoint location of the Web service based on an address element of the additional configuration file. However, Stelting discloses "wherein identification of the Web service by the standard naming and directory provider (Col. 7, lines 2-5) further comprising:

locating means for locating an additional configuration file (Col. 6, lines 44-49, describes method of service detectors utilizing a variety of techniques for performing look up of web services; Stawikowski, [0017], lines 1-7, further describes method where computer application sends request to remote node requesting WSDL documents describing additional capabilities (configuration) of a web service);

determining means for determining if a service name element is present in the additional configuration file (Col. 6, lines 52-56); and

responsive to determining the service name element exists is present in the additional configuration file, locating means for locating an endpoint location of the Web service based on an address element of the additional configuration file" (Col. 7, lines 2-8, discloses discovering endpoint location by a number of methods, including a direct query method). Zhao, Stelting and Stawikowski are analogous art because they are from the same field of endeavor of web services implementation.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method, system and computer program product on a medium for

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locating a web service (as taught by Miller and Zhao) to include implementation of a standard naming and directory provider as taught by Stelting and Stawikowski because Zhang teaches the importance of extending web service searches to include aggregate results from multiple services in order to extend search capability.

([0014], lines 1-5; [0013], lines 6-10).

Therefore, it would have been obvious to combine Miller, Zhao, Stelting and Stawikowski for the benefit of creating a web services lookup implementation that includes searching configuration files for information as specified in claim 20.

For claim 21, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The data processing system of claim 20 (see rejection for claim 20 supra) further comprising:

retrieving means for retrieving an instance of the Web service based on the endpoint location (Miller, [0043], lines 13-15); and
returning means for returning the instance of the Web service to the service requester" (Miller, [0045], lines 1-8).

For claim 24, the combination of Miller and Zhao discloses:

The computer program product of claim 23 (see rejection for claim 23 supra).
The combination of Miller and Zhao does not disclose: wherein identification of the Web service by the standard naming and directory provider further comprising:

seventh instructions for locating an additional configuration file;

eight instructions for determining if a service name element is present in the additional configuration file; and
responsive to determining the service name element exists is present in the additional configuration file, ninth instructions for locating an endpoint location of the Web service based on an address element of the additional configuration file.

However, Stelting discloses "wherein identification of the Web service by the standard naming and directory provider (Col. 7, lines 2-5) further comprising:

seventh instructions for locating an additional configuration file (Col. 6, lines 13-21);
eight instructions for determining if a service name element is present in the additional configuration file (Col. 6, lines 13-21); and
responsive to determining the service name element exists is present in the additional configuration file, ninth instructions for locating an endpoint location of the Web service based on an address element of the additional configuration file. (Col. 6, lines 13-21).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method, system and computer program product on a medium for locating a web service (as taught by Miller and Zhao) to include implementation of a standard naming and directory provider as taught by Stelting and Stawikowski because Zhang teaches the importance of extending web service searches to include aggregate results from multiple services in order to extend search capability.

([0014], lines 1-5; [0013], lines 6-10).

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Therefore, it would have been obvious to combine Miller, Zhao, Stelting and Stawikowski for the benefit of creating a web services lookup implementation that includes searching configuration files for information as specified in claim 24.

For claim 25, the combination of Miller, Zhao, Stelting and Stawikowski discloses:

The computer program product of claim 24 (see rejection for claim 24 supra), further comprising:

tenth instructions for retrieving an instance of the Web service based on the endpoint location (Miller, [0043], lines 13-15 and [0034], lines 1-4); and eleventh instruction for returning the instance of the Web service to the service requester" (Miller, [0045], lines 1-8 and [0034], lines 1-4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clayton Williams whose telephone number is 571-270-3801. The examiner can normally be reached on M-F (7-30 a.m. - 5 p.m.).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on 571-272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRW

11/21/2007


SAM RIMELL
PRIMARY EXAMINER